

ABSTRACT

A collapsible discone antenna is provided with an ultra wide band width by providing a collapsible conical skeleton cone, with the rods of the skeleton being provided with meander lines so as to effectively reduce the overall dimensions of the antenna by a factor of 2, with the antenna rods being electrically interconnected at their distal ends so as to eliminate performance degradation due to varying ground conductivities. A specialized feed configuration is used in one embodiment to feed multiple antennas stacked above a low band disc through the utilization of one or more coaxial lines which are wrapped around a ferrite toroid so that they may be passed up through the low-band disc without detuning the low band discone antenna. The use of the toroid inductor between the low-band cone and the low-band disc further reduces the low frequency cutoff of the antenna by markedly decreasing the VSWR at frequencies as low as 20 megahertz.